

# Volume XXII, THE SCIENCE TEACHER

## Index—February through November, 1955

### Author's Index

- Anselm, Brother I., F.S.C. *Making Projects Serve Our Individual Needs*. October: 228.
- Barish, William. "Cash In" on Your Waste Platinum. April: 143.
- Barr, George S. *An Interesting Surveying Project*. October: 247.
- Barr, George S. *How Much Water in an Apple?* September: 186.
- Barr, George S. *Ideas for a Young Naturalist*. April: 143.
- Beck, Charles F. *A "Breadboard" Demonstration Radio Receiver*. March: 102.
- Bennett, Thomas P. *Demonstration of Cigarette Tars*. November: 295.
- Bennett, Thomas P. *Hero's Heat Engine*. November: 297.
- Blackwood, Paul E. and Kenneth E. Brown. *Science Education Research—1954* (a bibliography). September: 199.
- Blanc, Sam S. *Graphic Representation of Student Interests in Science*. March: 91.
- Branley, Franklyn M. *Equipment for Elementary Science: Providing a Source of Heat*. April: 133.
- Brown, Kenneth E. and Paul E. Blackwood. *Science Education Research—1954* (a bibliography). September: 199.
- Buck, Jacqueline V. and George G. Mallinson. *Science Education Research and the Classroom Teacher*. February: 20.
- Carleton, Robert H. *Physics Hazard, Math Hazard, or Teacher Hazard?* September: 173.
- Clyde, A. E. and Verna Shields. *Something New to Show the Change of Seasons*. October: 245.
- Collier, Calhoun C. and Edward E. Heathcote. *Integration of Science with Other Subjects*. February: 14.
- Cooper, Robert H. *Developing Science Atmosphere in the Elementary Classroom*. November: 280.
- Crossland, R. W. *The Training of Science Teachers in a University Education Department*. April: 123.
- Dewey, John. *Method in Science Teaching*. April: 119.
- Easton, Elmer C. *Energy Resources*. November: 269.
- Emery, Alden H. *The Education Team*. February: 9.
- Engle, T. L. *Psychology as a High School Science*. October: 235.
- Goff, Aaron. *Emphasizing the Unknown*. November: 291.
- Havighurst, Robert J. *Science and Intelligent Choice*. October: 221.
- Heathcote, Edward E. and Calhoun C. Collier. *Integration of Science with Other Subjects*. February: 14.
- Heinlein, C. Leroy. *Science and the Flannel Board*. April: 146.
- Henderson, H. Francis. *Eyepiece Micrometers*. March: 101.
- Hendricks, B. Clifford. *Evidence Awareness*. March: 78.
- Hoch, Loren L. *The Use of Sponsored Films in Teaching Biology*. September: 179.
- Jackson, William N. *Reflective Thinking as a Purpose in High School Science*. November: 273.
- Jaquiss, Robert S. *To Demonstrate the Hot Water Heater*. April: 147.
- Kelson, Walter and Clyde E. Parrish. *Can Chemistry Contribute to General Education?* February: 17.
- Kritchevsky, Evelyn S. *Two Simple Word Games as Teaching Aids*. November: 287.
- Kuner, Harry. *Nurturing Laboratory Interests in Chemistry*. March: 101.
- Liston, Florence and George Woodsum. *An Inexpensive Scientific Library*. October: 238.
- Long, Robert H. *Demonstrating the Principle of Relative Motion*. April: 144.
- Lowden, Mary and Robert Stollberg. *Elementary School Science in the Making*. March: 75.
- Lucow, William H. *A Research Study in the Learning of High School Chemistry*. November: 283.
- Mallinson, George G. and Jacqueline V. Buck. *Science Education Research and the Classroom Teacher*. February: 20.
- Mecum, Ida May. *The Significance of Pasteur's Attempt to Disprove the Theory of Spontaneous Generation*. March: 70.
- Nelson, Clifford R. *A Test for Speed and Understanding of Science Reading Materials*. October: 240.
- Parrish, Clyde E. and Walter Kelson. *Can Chemistry Contribute to General Education?* February: 17.



- Pollack, Harvey. *A Design Set for High School Electronics*. September: 183.
- Richards, James E., Jr. *The Friendly Insect*. April: 131.
- Richardson, John S. *Professional Discipline and the Teaching of Science*. September: 169.
- Ronneberg, Conrad E. *New Requirements for Provisional Teaching Certificate in Science in Ohio*. March: 85.
- Sack, Nathan. *A New Building: Elementary Science Implications*. September: 185.
- Schenberg, Samuel. *A Study of the Nature and Extent of the Employment of Laboratory Assistants in the High Schools of the United States*. October: 231.
- Shawver, Murl C. *The Science Teacher and the Challenge of Cancer*. April: 127.
- Shein, Ira E. *Test Tubes and Tadpoles for Teachers of Science*. March: 81.
- Shields, Verna and A. E. Clyde. *Something New to Show the Change of Seasons*. October: 245.
- Smith, Arthur W., Jr. *A Problem-Solving Demonstration*. November: 295.
- Stollberg, Robert and Mary Lowden. *Elementary School Science in the Making*. March: 75.
- Stollberg, Robert. *Science Demonstrations for Improved Learning*. November: 277.
- Subarsky, Zachariah. *Toward More Effective Laboratory Work in Science—A Try*. September: 186.
- Telfer, Richard G. *Results with Projects in General Science*. April: 145.
- Thiessen, G. W. *Finding Atomic Weights*. April: 140.
- Thomson, Procter. *Scientific and Technical Manpower: The Economics of the Case*. September: 177.
- Westmeyer, Paul. *Inexpensive Models for Demonstrating Molecular Structure*. November: 295.
- Wilson, Leland L. *What "It" Did for Nancy*. October: 243.
- Wolf, Frank E. *How to Insure a Successful Blood Slide Demonstration*. February: 41.
- Wolf, Frank E. *Toward Racial Integration*. October: 225.
- Woodsum, George and Florence Liston. *An Inexpensive Scientific Library*. October: 238.

## Topical Index

### Education of Science Teachers

- Emphasizing the Unknown*. Aaron Goff. November: 291.
- Physics Hazard, Math Hazard, or Teacher Hazard*. Robert H. Carleton. September: 173.
- The Training of Science Teachers in a University Education Department*. R. W. Crossland. April: 123.

### Elementary School Science

- A New Building: Elementary Science Implications*. Nathan Sack. September: 185.
- An Interesting Surveying Project*. George S. Barr. October: 247.
- Developing Science Atmosphere in the Elementary Classroom*. Robert H. Cooper. November: 280.
- Elementary School Science in the Making*. Mary Lowden and Robert Stollberg. March: 75.
- Equipment for Elementary Science: Providing a Source of Heat*. Franklyn M. Branley. April: 133.
- How Much Water in an Apple?* George S. Barr. September: 186.

- Ideas for a Young Naturalist*. George S. Barr. April: 143.

- Integration of Science with Other Subjects*. Calhoun C. Collier and Edward E. Heathcote. February: 14.

### Experiments, Demonstrations, and Pupil Projects and Activities

- A "Breadboard" Demonstration Radio Receiver*. Charles F. Beck. March: 102.
- A Design Set for High School Electronics*. Harvey Pollack. September: 183.
- An Interesting Surveying Project*. George S. Barr. October: 247.
- Demonstrating the Principle of Relative Motion*. Robert H. Long. April: 144.
- Demonstration of Cigarette Tars*. Thomas P. Bennett. November: 295.
- Eye-piece Micrometers*. H. Francis Henderson. March: 101.
- Hero's Heat Engine*. Thomas P. Bennett. November: 297.
- How Much Water in an Apple?* George S. Barr. September: 186.

*How to Insure a Successful Blood Slide Demonstration.* Frank E. Wolf. February: 41.

*Inexpensive Models for Demonstrating Molecular Structure.* Paul Westmeyer. November: 295.

*Making Projects Serve Our Individual Needs.* Brother I. Anselm, F.S.C. October: 228.

*New Ideas for School Science Laboratory Activities—A Report of the 1954 West Coast Science Teachers' Summer Conference.* February: Insert.

*Nurturing Laboratory Interests in Chemistry.* Harry Kuner. March: 101.

*Results with Projects in General Science.* Richard G. Telfer. April: 145.

*Something New to Show the Change of Seasons.* Verna Shields and A. E. Clyde. October: 245.

*To Demonstrate the Hot Water Heater.* Robert S. Jaquiss. April: 147.

*Toward Racial Integration.* Frank E. Wolf. October: 225.

#### FSA Activities

*"Careers in Science Teaching."* September: 193.

*"Encouraging Future Scientists: Materials and Services Available in 1955-56."* September: 193.

*Financial Support of the Foundation.* February: 57. October: 254.

*PSAF-NSTA Advisory Panel.* September: 193.

*"If You Want To Do A Science Project."* September: 193.

*New Ideas for School Science Laboratory Activities—A Report of the 1954 West Coast Science Teachers' Summer Conference.* February: Insert.

*Recognition Awards for Science Teachers.* April: 153. September: 193.

*Science Achievement Awards for Students.* February: 57. September: 193 and Insert. November: 303.

*Student Chart-Making Contest.* February: 57. April: 153. November: 303.

*Summer Opportunities for Science Teachers.* February: 57. September: 193. November: 303.

*What Is PSAF and What Does It Do?* March: 105. October: 253 and 254.

*What "It" Did for Nancy.* Leland L. Wilson. October: 243.

*Winners of Science Achievement Awards for Students, 1955.* September: 187.

#### History, Philosophy, Goals, and Objectives

*Can Chemistry Contribute to General Education?* Clyde E. Parrish and Walter Kelson. February: 17.

*Evidence Awareness.* B. Clifford Hendricks. March: 78.

*Method in Science Teaching.* John Dewey. April: 119.

*Professional Discipline and the Teaching of Science.* John S. Richardson. September: 169.

*Reflective Thinking as a Purpose in High School Science.* William N. Jackson. November: 273.

*Science and Intelligent Choice.* Robert J. Havighurst. October: 221.

*The Education Team.* Alden H. Emery. February: 9.

#### Information for Science Teachers

*A Study of the Nature and Extent of the Employment of Laboratory Assistants in the High Schools of the United States.* Samuel Schenberg. October: 231.

*An Inexpensive Scientific Library.* Florence Liston and George Woodsum. October: 238.

*Elementary School Science in the Making.* Mary Lowden and Robert Stollberg. March: 75.

*Energy Resources.* Elmer C. Easton. November: 269.

*Finding Atomic Weights.* G. W. Thiessen. April: 140.

*More Than Satellites! International Geophysical Year.* September: 194.

*New Requirements for Provisional Teaching Certificate in Science in Ohio.* Conrad E. Ronneberg. March: 85.

*Science Education 1955 . . . A Directory of Summer Workshops and Programs of Study.* April: 135.

*Scientific and Technical Manpower: The Economics of the Case.* Procter Thomson. September: 177.

*Summer Institutes, Conferences, and Fellowship Programs for Science Teachers.* February: 23.

*The Friendly Insect.* James E. Richards, Jr. April: 131.

*The Science Teacher and the Challenge of Cancer.* Murl C. Shawver. April: 127.

*The Significance of Pasteur's Attempt to Disprove the Theory of Spontaneous Generation.* Ida May Mecum. March: 70.

*What "It" Did for Nancy.* Leland L. Wilson. October: 243.

#### Instructional Suggestions, Methods, and Materials

*A New Building: Elementary Science Implications.* Nathan Sack. September: 185.

*A Problem-Solving Demonstration.* Arthur W. Smith, Jr. November: 295.

*"Cash In" on Your Waste Platinum.* William Barish. April: 143.

*Demonstrating the Principle of Relative Motion.* Robert H. Long. April: 144.

*Developing Science Atmosphere in the Elementary Classroom.* Robert H. Cooper. November: 280.

*Emphasizing the Unknown.* Aaron Goff. November: 291.



*Equipment for Elementary Science: Providing a Source of Heat.* Franklyn M. Branley. April: 133.

*Finding Atomic Weights.* G. W. Thiessen. April: 140.

*How to Insure a Successful Blood Slide Demonstration.* Frank E. Wolf. February: 41.

*Ideas for a Young Naturalist.* George S. Barr. April: 143.

*Making Projects Serve Our Individual Needs.* Brother I. Anselm, F.S.C. October: 228.

*Nurturing Laboratory Interests in Chemistry.* Harry Kuner. March: 101.

*Physics Hazard, Math Hazard, or Teacher Hazard?* Robert H. Carleton. September: 173.

*Results with Projects in General Science.* Richard G. Telfer. April: 145.

*Science and the Flannel Board.* C. Leroy Heinlein. April: 146.

*Science Demonstrations for Improved Learning.* Robert Stollberg. November: 277.

*Test Tubes and Tadpoles for Teachers of Science.* Ira E. Shein. March: 81.

*The Use of Sponsored Films in Teaching Biology.* Loren L. Hoch. September: 179.

*Toward More Effective Laboratory Work in Science—A Try.* Zachariah Subarsky. September: 186.

*Toward Racial Integration.* Frank E. Wolf. October: 225.

*Two Simple Word Games as Teaching Aids.* Evelyn S. Kritchevsky. November: 287.

#### Investigations, Research, and Fact-finding Studies

*A Research Study in the Learning of High School Chemistry.* William H. Lucow. November: 283.

*A Study of the Nature and Extent of the Employment of Laboratory Assistants in the High Schools of the United States.* Samuel Schenberg. October: 231.

*Graphic Representation of Student Interests in Science.* Sam S. Blanc. March: 91.

*Science Education Research—1954 (A bibliography).* Paul E. Blackwood and Kenneth E. Brown. September: 199.

*Science Education Research and the Classroom Teacher.* George G. Mallinson and Jacqueline V. Buck. February: 20.

*The Use of Sponsored Films in Teaching Biology.* Loren L. Hoch. September: 179.

#### NSTA Activities

*Advice Wanted by NSTA Committees.* October: 251.

*Advisory Council Reorganized.* April: 150.

*Atlanta Meeting.* October: 249. November: 299.

*Austin Meeting.* September: 196.

*Berkeley Meeting.* February: 53.

*Board Actions, Madison Meeting.* September: 195.

*Cooperation with Other Groups.* April: 151.

*Life Members.* April: 150.

*Madison Meeting.* February: 55. April: 149.

*National Convention, 1955.* February: 53. March: 88.

*National Convention, 1956.* September: 194. October: 249. November: 299, 300, and 301.

*Nominees for Officers and Directors, 1955.* February: 45.

*NSTA State Directors and Co-Directors, 1955-56.* September: 196.

*Officers and Directors for 1955-56.* April: 149.

*Publications Committee.* February: 55.

*Report from Headquarters.* September: 195.

*Reports from NSTA Affiliated Groups.* March: 93.

#### Science Course Content, Organization, and Curriculum

*Integration of Science with Other Subjects.* Calhoun C. Collier and Edward E. Heathcote. February: 14.

*Psychology as a High School Science.* T. L. Engle. October: 235.

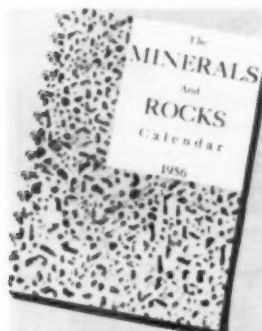
#### Tests and Evaluation of Outcomes

*A Test for Speed and Understanding of Science Reading Materials.* Clifford R. Nelson. October: 240.

## The MINERALS and ROCKS CALENDAR—1956

Photographed and arranged by  
B. M. SHAUB

The FIRST and ORIGINAL engagement calendar illustrated with pictures of minerals and rocks.



A 128-page pictorial calendar, 6 x 8½ inches; 56 pages devoted to pictures of minerals, rocks, and scenes pertaining to the mineral industry; all with titles; 53 calendar pages ruled for each day of the week, other pages for addresses, memoranda, etc.

An educational book for the mineral collector, naturalist, teacher, scout, and others. Attractively boxed for mailing.

The calendar is a source for many excellent pictures of minerals for opaque projection; it makes an attractive and useful gift for those interested in the natural sciences.

\$1.50 plus 8¢ postage

**BENJAMIN M. SHAUB**

Dept. A. 159 Elm Street

Northampton

Massachusetts

**NSTA Life Member Roster** has reached 162, representing an increase of 32 percent since last October. Welcome to the following who have become life members since April, 1955:

AIELLO, ALFRED, North Royalton, Ohio  
 APPLER, CHARLES R., Salisbury, Maryland  
 BRETT, FRED W., St. Paul, Minnesota  
 BURNS, RICHARD F., Whitinsville, Massachusetts  
 CLINE, ERVIN L., Arriba, Colorado  
 DOUGHERTY, MARY C., Wilmington, Delaware  
 FOX, FRED W., Oxford, Ohio  
 GIBBS, GEORGE R., JR., Hicksville, New York  
 GRAHAM, BEVERLY K., Artesia, New Mexico  
 GUILD, WILLIAM, St. Petersburg, Florida  
 GURR, EDWARD M., Phoenix, Arizona  
 HOMIK, PETER, Cleveland, Ohio  
 JONES, MRS. KATHERINE M., Tulsa, Oklahoma  
 LAMKIN, F. DUANE, Portsmouth, Virginia  
 MCKONE, FREDERICK W., Rockville, Connecticut  
 MERVYN, G. GORDON, Kirkland Lake, Ontario, Canada  
 MEYER, KENNETH J., Harrison, New York  
 WARNE, HARRIET C., Haddon Heights, New Jersey  
 WOJCIK, CHARLIE V., Convoy, Ohio  
 YOUNG, HARRY H., JR., Wilmington, Delaware  
 ZNAMENAK, JOSEPH E., Cleveland, Ohio

#### Our Advertisers

	Page
Allyn and Bacon, Inc.	282
American Gas Association	297
American Optical Company	263
Atomic Laboratories	292
Bausch & Lomb Optical Company	308
Bell Telephone Laboratories	298
Central Scientific Company	Cover IV
Cornell University	293
Corning Glass Works	262
Denoyer-Geppert Company	292
The Graf-Apsco Company	307
Harcourt, Brace and Company	266
D. C. Heath and Company	294
The Minerals and Rocks Calendar	315
National Science Teachers Association	261
Prentice-Hall, Inc.	304
Rand McNally & Company	302
Science Associates	312
E. H. Sheldon Equipment Company	Cover III
The L. W. Singer Co.	288
Stanford University	293
Stansi Scientific Company	Cover II
Testa Manufacturing Company	290
United Scientific Company	310
D. Van Nostrand Company, Inc.	306
Walt Disney Productions—16mm Division	316
W. M. Welch Scientific Company	268



©W.D.P.

*take your* **FIELD TRIP**  
with *WALT DISNEY*

*using...* **WORLD ACCLAIMED**  
**TRUE LIFE ADVENTURE**  
**NATURE DRAMAS**  
16mm • COLOR BY TECHNICOLOR

...the most authentic on-the-spot records of nature in action ever filmed. To assemble these photographic facts, months, even years have been patiently spent by top naturalist photographers. These rare documentaries have been produced in a manner truly "Disney"

**NATURE'S HALF ACRE**  
**BEAVER VALLEY**  
**SEAL ISLAND**

*Mail coupon NOW to...*

**WALT DISNEY PRODUCTIONS**  
16mm DIV. DEPT. ST-11 BURBANK, CALIF.

GENTLEMEN: Please send us your complete catalog of DISNEY TITLES and address of our nearest film library.		<b>Dept. ST-11</b>
NAME _____		
ORGANIZATION _____		
ADDRESS _____		
CITY _____	STATE _____	



